ABSTRACT

A high-density plasma process is proposed for depositing a layer of Silicon Nitride on a substrate in a plasma reactor. The process includes the steps of: providing a gas including precursor components of the Silicon Nitride, generating a plasma applying a radio-frequency power to the gas, and the plasma reacting with the substrate to deposit the layer of Silicon Nitride. The power applied to the gas is in the range from 2.5kW to 4kW.